



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,100	06/21/2001	Joo-Hyoung Lee	P56382	3922

7590 05/20/2004

Robert E. Bushnell  
Suite 300  
1522 K Street, N.W.  
Washington, DC 20005

EXAMINER

TRAN, TRANG U

ART UNIT	PAPER NUMBER
----------	--------------

2614

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/885,100

Applicant(s)

LEE ET AL.

Examiner

Trang U. Tran

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,4-12 and 15-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-12 and 15-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed Feb. 20, 2004 have been fully considered but they are not persuasive.

In re pages 14-15, applicants argue that, under the rules and the law governing rejections under 35 U.S.C. §103, it is incumbent upon the Examiner to support such assertions by placing on the record evidence, in the form of prior patents or publications, of the fact that such features and functions are "old and well known" in the art and that there is nothing within the "four corners" of the disclosure of Kuo et al '040 which would suggest to or instruct a person of ordinary skill in the art as to the necessity or desirability of modifying the disclosure of Kuo et al '040 in a manner suggested by the Examiner.

In response, the examiner respectfully disagrees. Lake, Jr. is cited herein to support the Official Notices taken in the last Office Action. Lake, Jr. shows that adding and/or subtracting a highlight signal from the video signals to thereby increase and/or decrease the level of the composed video signals of the highlight portion was "old and well know" in the art, see col. 1, lines 8-28 of Lake, Jr.

Kuo et al was cited to show the capability of highlighting a portion of the picture. However, Kuo et al does not specifically disclose that the controller adds the highlight signal to the video signals to thereby increase the level of the composed video signals of the highlight portion, and the controller subtracts the highlight signal from the video

signals to thereby decrease the level of the composed video signal of the highlight portion.

Lake, Jr. is cited to suggest the capabilities of adding and subtracting the luminance along edges of the luminance field (highlights and shadows).

A reference must be considered not only for what it expressly teaches, but also for what it fairly suggests. In re Burckel, 592, F.2d 1175, 201 USPQ 67 (CCPA 1979). The artisan is presumed to know something about the art apart from what references literally disclose. In re Jacoby, 309 F.2d 513, 135 USPQ 317 (CCPA 1962). The examiner believes that the artisan would have been recognized the obviousness of adding and subtracting the luminance along edges of the luminance field of Lake, Jr.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-12, 15-22 and 27-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al (US Patent No. 6,226,040 B1).

In considering claim 1, Kuo et al discloses all the claimed subject matter, note 1) the claimed a displaying part for displaying a picture is met by the video display device 250 (Fig. 2, col. 5, lines 26-37), 2) the claimed a selection input part for selecting for display a highlight portion within the picture of the displaying part is met by the infrared transmitter 260 which transmitted the selection input from the remote controller (Fig. 2,

Art Unit: 2614

col. 5, lines 12-25), 3) the claimed a storage part for storing selection data according to the selection made through the selection input part is met by the storage device 267 which stored the position of the selected area (Fig. 2, col. 5, line 61 to col. 6, line 5), and 4) the claimed a controller for generating a highlight signal corresponding to the highlight portion based the selection data, for composing the highlight signal with video signals to thereby generate composed video signals, and for displaying the highlight portion within the picture of the displaying part based on the composed video signals is met by the OSP signal generator 330 and the digital image processor 300 (Figs. 2-4, col. 5, line 61 to col. 7, line 33).

However, Kuo et al explicitly do not disclose the claimed wherein the controller adds the highlight signal to the video signals to thereby increase the level of the composed video signals of the highlight portion and the controller subtracts the highlight signals from the video signals to thereby decrease the level of the composed video signals of the highlight portion. The capability superimposing the highlight signal on the video signal (note: superimposing highlight signal on the video signal will increase the level of the video signal) and the capability desuperimposing the highlight signal on the video signal are old and well known in the art (note: desuperimposing highlight signal on the video signal will decrease the level of the video signal). Therefore, the Official Notice is taken. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the old and well known superimposing and desuperimposing the highlight signal on the video signal into Kuo et al's system since it merely amounts

Art Unit: 2614

of selecting an alternative equivalent device for adding and removing highlight signal and video signal.

In considering claim 4, the claimed wherein the selection input part comprises a size control key for controlling a size of the highlight portion is met by the control signal 310 which is generated by the OSP signal generator 330 and the user can optionally adjust the position and size of the selected area (Fig. 2, col. 2, lines 50-55 and col. 5, line 61 to col. 6, line 39).

In considering claim 5, the claimed wherein the selection input part comprises a position control key for controlling a position of the highlight portion is met by the control signal 310 which is generated by the OSP signal generator 330 and the user can optionally adjust the position and size of the selected area (Fig. 2, col. 2, lines 50-55 and col. 5, line 61 to col. 6, line 39).

In considering claim 6, the claimed wherein the highlight signal comprises at least one color signal corresponding to the video signals; and the selection input part comprises a signal control key for controlling a level of said at least one color signal is met by the control signal 310 which is generated by the OSP signal generator 330 and the user can optionally adjust the colors and the brightness of the pixels within the selected area(s) (Fig. 2, col. 2, lines 50-55 and col. 5, line 61 to col. 7, line 67).

Claim 7 is rejected for the same reason as discussed in claim 6.

Claim 8 is rejected for the same reason as discussed in claim 6.

Claim 9 is rejected for the same reason as discussed in claim 5.

Claim 10 is rejected for the same reason as discussed in claim 6.

Claim 11 is rejected for the same reason as discussed in claim 1.

Claim 12 is rejected for the same reason as discussed in claim 1.

Claims 15-17 are rejected for the same reason as discussed in claims 4-6, respectively.

Claim 18 is rejected for the same reason as discussed in claim 6.

Claim 19 is rejected for the same reason as discussed in claim 5.

Claim 20 is rejected for the same reason as discussed in claim 6.

Claim 21 is rejected for the same reason as discussed in claim 6.

Claim 22 is rejected for the same reason as discussed in claim 1.

In considering claim 27, the claimed wherein said displaying means comprises an on screen display (OSD) selecting part and a control key part for controlling a size and a position of the highlight portion is met by the remote controller which changes the scope, position, color, brightness, and even the number of the selected area(s), the micro-processor 263 sends the parameter setting signal 350 to the OSP signal generator 330, thus the OSP signal generator 330 generates the control signal 310 (Figs. 2 and 3, col. 5, line 61 to col. 6, line 24).

In considering claim 28, the claimed wherein said control key part comprises a size control key for controlling the size of the highlight portion, a position control key for controlling the position of the highlight portion, and a signal control key for controlling a value of the highlight signal is met by the remote controller which changes the scope, position, color, brightness, and even the number of the selected area(s), the micro-processor 263 sends the parameter setting signal 350 to the OSP signal generator 330,

Art Unit: 2614

thus the OSP signal generator 330 generates the control signal 310 (Figs. 2 and 3, col. 5, line 61 to col. 6, line 24).

In considering claim 29, the claimed wherein said control means further comprises a adjuster part for adjusting the picture in response to external signals adjusted by said control key part is met by the OSP image processor 231 (Fig. 3, col. 6, line 25 to col. 7, line 67).

In considering claim 30, Kuo et al disclose all the limitations of the instant invention as discussed in claims 1 and 22 above, except for providing the claimed wherein selection of highlighting by a user through said selection means causes highlight signals to be supplied to said adjuster part through an SCL port and an SDA port connecting said selection means to said control means. The capability of using an SCL port and an SDA port connecting said selection means to said control means old and well known in the art. Therefore, the Official Notice is taken. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the old and well known of using an SCL port and an SDA port connecting said selection means to said control means into Kuo et al's system since it merely amounts of selecting available ports.

In considering claim 31, the claimed wherein a user can employ the OSD selecting part to select the OSD so that said highlight portion and said OSD are displayed simultaneously is met by the OSP image processor 231 (Fig. 3, col. 6, line 25 to col. 7, line 67).



In considering claim 32, the claimed wherein said control means further comprises a clock generating part for generating a clock signal to set up a size and a position of the highlight portion is met by the pixel clock which is timing of displaying the further data (Fig. 3, col. 6, line 25 to col. 7, line 67).

In considering claim 33, the claimed said control means further comprising an adjuster part connected to said clock generating part for receiving the clock signal, and for adjusting a size of the clock signal according to a control signal from said selection means is met by the vertical pixel shift register 404 and the horizontal shift register 402 (Fig. 3, col. 6, line 25 to col. 7, line 67).

In considering claim 34, the claimed said control means further comprising input terminals for receiving a control signal for controlling brightness of the video signals is met by the first brightness control device 525 and the second brightness control device 526 (Fig. 3, col. 6, line 25 to col. 7, line 67).

4. Claims 23-24, 30 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al (US Patent No. 6,226,040 B1) in view of Suen et al. (US Patent No. 6,552,750B1).

In considering claim 23, Kuo et al disclose all the limitations of the instant invention as discussed in claims 1 and 22 above, except for providing the claimed wherein said highlight signal generating part comprises an R highlight signal generating part, a G highlight signal generating part, and a B highlight signal generating part for generating R, G and B highlight signals, respectively. Suen et al teach that the data separator 35 separates the different (red, green, blue) color values so that they may be

Art Unit: 2614

handled individually and transfers the separated values to the mixer 36 where they are selected for transfer to the display 24 (Fig. 2, col. 5, lines 24-44). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to incorporate the different (red, green, blue) color values as taught by Suen et al into Kuo et al's system in order to change the size of graphic data for presentation on an television output display.

In considering claim 24, the claimed wherein the video signals generated by said signal generating means comprise R, G and B video signals, and R highlight signal generating part, the G highlight signal generating part, and the B highlight signal generating part adjust the sizes of the R, G and B video signals, respectively is met by the separator 35 which separates the different (red, green, blue) color values so that they may be handled individually and transfers the separated values to the mixer 36 where they are selected for transfer to the display 24 (Fig. 2, col. 5, lines 24-44) of Suen et al.

In considering claim 35, Kuo et al disclose all the limitations of the instant invention as discussed in claims 1 and 22 above, except for providing the claimed said video signals comprising R, G and B signals, and said input terminals receiving R-brightness, G-brightness and B-brightness signals, respectively. Suen et al teach that the data separator 35 separates the different (red, green, blue) color values so that they may be handled individually and transfers the separated values to the mixer 36 where they are selected for transfer to the display 24 (Fig. 2, col. 5, lines 24-44). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to

Art Unit: 2614

incorporate the different (red, green, blue) color values as taught by Suen et al into Kuo et al's system in order to change the size of graphic data for presentation on an television output display.

5. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al (US Patent No. 6,226,040 B1) in view of Kim (US Patent No. 6,473,130B1).

In considering claim 25, Kuo et al disclose all the limitations of the instant invention as discussed in claims 1 and 22 above, except for providing the claimed wherein said control means further comprises an image sharpness part for adjusting a signal size representing a borderline of the highlight portion according to a selection by said selection means, and for supplying the adjusted signal size to said signal composing part. Kim teaches that the sub-picture display apparatus according to the present invention provides an effect capable of distinctively displaying the sub-picture more definitely and clearly, by thickening the boundary portion of the sub-picture and varying the brightness of the sub-picture to become brighter, in the case that the main picture is complicated spatially or an amount of temporal movement of the main picture is large (Fig. 4, col. 3, line 5 to col. 4, line 8). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to incorporate thickening the boundary portion of the sub-picture as taught by Kim into Kuo et al' system in order to display a sub-picture in which the display state of the sub-picture is varied according to an image complexity and/or a degree of movement of a main picture, to thereby allow the sub-picture to be always distinct irrespective of the image state of the main picture (col. 1, lines 54-60).

In considering claim 26, the claimed wherein said signal composing part combines the video signals generated by said signal generating means with borderline signals indicating the borderline of the highlight portion outputted by said image sharpness part, and outputs a resultant combined signal to said displaying means is met by signal processor 13 (Figs. 1 and 4, col. 3, line 5 to col. 4, line 8) of Kim.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Trang U. Tran** whose telephone number is **(703) 305-0090**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W. Miller**, can be reached at **(703) 305-4795**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9306 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 308-HELP.

TT TT  
May 14, 2004

  
**MICHAEL H. LEE**  
**PRIMARY EXAMINER**